

September 10, 1995

Dear Editor:

We read with interest the article by Robertson and colleagues.<sup>1</sup> The conclusion of the authors was that for patients with antral cancer, R<sub>3</sub> total gastrectomy compared with R<sub>1</sub> subtotal gastrectomy had a low mortality rate, but a higher morbidity rate and worse survival. We would like to make some comments based on our retrospective study<sup>2</sup> with the same subject, and the data of the literature.

This randomized trial addresses a very crucial question. What are the limits and possibilities of surgery because the disease is not more localized and therefore, surgical resection cannot be effective? A more radical surgical procedure should be performed only when the expected long-term survival benefit under consideration of postoperative morbidity and mortality risk is better than those that can be achieved with a conservative surgical resection.

In this randomized trial, 55 patients with antral cancer were randomized to undergo either a standard D1 subtotal gastrectomy or an extensive D3 total gastrectomy.<sup>1</sup> In this small group of patients, extended surgery (D3 resection) was associated with a larger transfusion requirement and longer hospital stay compared with D1 subtotal gastrectomy. D3 total gastrectomy also resulted in a higher rate of postoperative septic complications (left subphrenic abscess), mostly due to fistulas from the pancreatic resection. Recent results of prospective randomized trials confirm the results of this study<sup>1</sup> in regard to increased morbidity after D2 total gastrectomy,<sup>3-5</sup> but in the latest very large multicentric Dutch trial,<sup>5</sup> even the mortality rate was significantly higher (10%) after D2 procedures; for the D2 total gastrectomy and splenectomy groups, the mortality rate was very high (14%). However, in Japanese reports<sup>6</sup> and in those from experienced centers in the West,<sup>7</sup> morbidity and mortality rates did not differ between D1 and D2/D3 procedures. However, these results were based on nonrandomized trials or retrospective studies.

Because the more extensive resection (D2/D3 total gastrectomy) has an increased morbidity risk and a possible increased mortality risk, the major question is whether long-term survival benefit of D2/D3 total gastrectomy justifies its performance.

After curative gastrectomy, approximately 50% of patients will die of recurrent local disease. To reduce the locoregional recurrence rate and to improve survival, total gastrectomy with extensive lymphadenectomy has been suggested.

To date, total gastrectomy is the treatment of choice even for antral cancer in Germany. Subtotal gastrectomy is performed only for small (T1/T2), intestinal-type carcinomas; according to Lauren classification, however, for advanced (T3/T4) intestinal or all diffuse types of carcinoma, total gastrectomy is the

standard procedure.<sup>2,3,8</sup> The aim of this strategy is to avoid recurrence in the gastric stump since the diffuse-type carcinoma because of its diffuse and submucosal spread requires more extensive oral safety margins than the well-circumscribed intestinal type cancer. In addition, right and left cardinal lymph nodes and those in fundus area (*i.e.*, lymph node stations 1, 2, and 4s, according to Japanese Research Society for Gastric Cancer) can be removed only by total gastrectomy whereas by subtotal gastrectomy, these node stations are left behind. However, this surgery tactic is opposed from the results of the reported study<sup>1</sup> and of our study.<sup>2</sup> The proximal resection margins were proven microscopically not involved,<sup>1,2</sup> either for intestinal or particularly for diffuse-type carcinoma. In addition, no stump cancers were detected by this study.<sup>1</sup>

The place of lymphadenectomy for surgical treatment of gastric cancer has not been yet determined. The Japanese results regarding the prognostic value of lymphadenectomy are convincing,<sup>6</sup> but these impressive results either could not be confirmed in the West,<sup>4,9</sup> or the therapeutic effect of D2 resection was limited to only a few patients.<sup>10</sup> Siewert, in a latest invited commentary,<sup>11</sup> has calculated the prognostic benefit of D2 resection in German patients with gastric cancer to be approximately 5%. Consequently, we would not expect from the present very small trial<sup>1</sup> to detect a significant increase of survival after D3 total gastrectomy. However, we are surprised with the worse overall survival rate after D3 total gastrectomy. The authors are unable to explain this result. They consider as main causes for the worse survival in the extensive (D3 total gastrectomy) group the adverse effect of blood transfusion and splenectomy on prognosis and possible tumor spillage from the many divided lymphatic vessels during the D3 dissection. However, all these explanations are speculative with controversy results and therefore, more future investigations are required. We believe that the worse survival after extensive resection must be related to the higher morbidity rate<sup>1</sup> because postoperative morbidity is an independent prognostic factor.<sup>12</sup> Increased morbidity can, by itself, have a negative impact on long-term survival.<sup>11</sup>

Splenectomy for antral cancer is unnecessary because the lymph nodes at the splenic hilus (no. 10) or along the splenic artery (no. 11) were not involved in any case in our study.<sup>2</sup> This result is confirmed absolutely in a latest review regarding the Japanese experience.<sup>13</sup>

In our study,<sup>2</sup> D2 total gastrectomy did not significantly increase the survival rate, but it did not decrease the survival rate compared with D1 subtotal gastrectomy, in contrast to the survival result of the present study.<sup>1</sup> However, multivariate analysis in the study by Robertson et al.<sup>1</sup> showed that after correction for blood transfusion, there was no survival difference between D3 total gastrectomy and D1 subtotal gastrectomy.

Subtotal gastrectomy is as safe as total gastrectomy to avoid

locoregional recurrence for antral cancer for both intestinal and diffuse types of carcinomas, according to Lauren classification. Because total gastrectomy has an increased morbidity, subtotal gastrectomy is the treatment of choice for antral cancer. The spleen and pancreas should be preserved. Whether a D2 lymphadenectomy should be performed in addition to subtotal gastrectomy is still open for debate; however, the current data indicate that it should be performed only in experienced centers with low morbidity and mortality rates.

## References

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November 14, 1995

Dear Editor:

We thank Dr. Roukos and associates for their comments.

In our patients randomized to R<sub>1</sub> subtotal gastrectomy, no recurrence developed in the gastric remnant. The high morbidity rate in the R<sub>3</sub> group is largely related to abscess formation around the pancreatic stump. The long-term survival in the R<sub>3</sub> group is significantly worse than that in the R<sub>1</sub> group. We agree that subtotal gastrectomy with preservation of the spleen and pancreas should be the recommended operation for antral cancer. Like Roukos et al., we believe that the additional morbidity of the more radical operation is related to resection of the spleen rather than the lymph node dissection per se. A subtotal gastrectomy with a D<sub>2</sub> lymph node clearance currently is the operation of choice for antral cancer in our department.

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July 24, 1995

Dear Editor:

There were several pleas for a phase III trial within the manuscript and the discussion regarding preoperative chemoradiotherapy for rectal cancer.<sup>1</sup> Unfortunately, no one mentioned the fact that there are now two such trials active. Both the Intergroup (Eastern Cooperative Oncology Group [ECOG], Radiation Therapy Oncology Group [RTOG], Southwest Oncology Group [SWOG], Cancer and Leukemia Group B [CALGB], and North Central Cancer Treatment Group [NCCTG]) and the National Surgical Adjuvant Breast Project (NSABP) have initiated trials that (if accrual targets are met) will answer the question of the relative value of preoperative chemoradiotherapy sequencing in patients with T3 rectal cancers. Because surgeons usually are the first treatment consultants, the fates of these trials with respect to patient accrual are largely in their hands.

## Reference

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Nov. 28, 1995

Dear Editor:

We would like to thank Dr. Hoffman for his letter regarding our article. In our manuscript,<sup>1</sup> the impact of preoperative chemotherapy and radiation on the histopathology of a subgroup